1.0 Site Visit

The Annual Inspection site visit was conducted on July 8, 2003. At the time of the visit, the weather was clear with a light breeze.

2.0 Significant Observations

The following observations, considered to be relevant to the stability of the slope were made:

- No significant changes to the settlement and cracking area at the north end of the site since the May 2002 inspection (Photos 1 to 3).
- The settlement and cracking area at the south end of this site that was first noted in May 2002 had been repaved, apparently only hours before the site visit (Photos 4, 5). This unfortunately erased any settlement or cracking that could have been observed.

3.0 Changes from Previous Visit

No significant changes were noted since the previous visit, aside from the repaving of the road surface at the south end of the site. It is not known if the site was repaved in response to the settlement and cracking that was noted in the May 2002 site visit, or if the settlement and cracking had worsened over the summer of 2002/spring of 2003.

The top cap of slope inclinometer 2002-3 (on the east shoulder of the road, in the southern cracking/settlement area) was rendered inaccessible by the repaving, despite a new flush-mount road surface box being installed by the maintenance contractor. AMEC understands that AT requested the maintenance contractor send some personnel back to the site in order to excavate and adjust the road box and align it with the slope inclinometer so that future readings could be taken. Slope inclinometer 2002-1, on the west shoulder of the road, was still accessible for readings.

4.0 Discussion

<u>North End of Site</u>
The site investigation and instrument readings by AMEC in the summer and fall of 2001 indicated that slope movement was occurring along the base of the road fill in the previously-identified settlement/cracking area at the north end of the site. The two slope inclinometers installed in 2001 are no longer functioning (the SI on the shoulder of the road was paved over and the SI on the slope face below the road has sheared off at the previously-noted movement zone). AMEC has commenced the design of remedial measures for the settlement/cracking area, but this design work has been deferred since the spring of 2002 when the new cracking area at the south end of the site was first noted.

South End of Site

The cracking area at the south end of the site, approximately 80 m south of the originally-noted settlement cracking area at the north end of the site, was drilled and instrumented in the fall of 2002. The readings on the slope inclinometers in this area have shown that active slope movement is occurring, with the resultant movement direction towards the southwest, as shown on the site plan. Please refer to the Spring 2003 monitoring report for further discussion.

5.0 Assessment

Instrument data and site observations up to May 2002 indicated that the cracking/settlement area at the north end of the site was experiencing continued movement. As noted above, the instruments at the north end of the site are no longer functioning (either sheared off or paved over) and the recent repaving prevented direct observations of the settlement/cracking conditions at the north end of the site. In the absence of any such information, it is prudent to assume that the stability conditions at the north end of the site have not changed since the May 2002 assessment.

The data from the instruments that were installed in the settlement/cracking area at the south end of the site in the fall of 2002 have shown ongoing slope movement to the southwest that encompasses the road alignment. Please refer to the Spring 2003 monitoring report for further discussion.

On the basis of the above notes, the Probability Factor with respect to the slope movement at this site should be kept at 11.

Based on the extent of the recent repaving, a large portion of the southbound lane is continuing to be affected. Over recent years this has been adequately handled by patching. Based on the extent and rate of movement observed to date, significant losses to the highway would not be expected to occur rapidly, however, a significant slide cannot be discounted. On this basis a Consequence Factor of 4 is assigned to this slide.

Based on the above, the Risk Level at this site is calculated as 44. This is unchanged from the Spring 2002 Assessment Report.

6.0 Recommendations

Semi-annual monitoring of the existing instrumentation should be continued as planned.

The Annual Assessment program already in place should be continued.

The surface conditions of the road at this location should be carefully monitored by maintenance personnel. This would be in conjunction with slope indicator monitoring to provide as early detection of potential problems below the road as possible.

The design of remedial measures for this site should be completed. Based on discussions at site during the annual assessment, AMEC understands that AT wishes to defer this design work until the next fiscal year. Given the recommended level of monitoring and inspection by AMEC, AT and maintenance contractor personnel listed above, this should not present a problem. Remediation is not urgently required at this site, however when planning for the next fiscal year, AT should consider the possible financial savings/merits of each of these possible courses of action:

i) Completing the design of remedial measures and keeping it "on the shelf", for rapid tendering and construction if required in the future.
ii) Completing the remedial measures design and construction during 2004, in order to save money on future patching at this site.
iii) Deferring any remedial measures design and continuing the planned monitoring. Only design and implement the remedial measures if the site conditions change and urgent remediation is required.